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Claims 1, 3-11, and 13-19 are rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent Nos. 5,364,282, 5,775,925, 5,928,015, and 5,603,625 (Tondreault) in view of U.S. Patent No. 5,470,240 (Suzuki). Applicants respectfully traverse this rejection for the following reasons.

Applicants first note that the inclusion of four US patents as the primary reference, all of which are apparently related by continuation practice, is improper, unnecessary, and obscures the rejection. For example, the various references to Tondreault in the office action are unclear as to which of the four patents is referred to. In order to clarify issues for appeal, the Examiner should pick a single Tondreault reference as representative. For the purposes of this response, applicants refer to U.S. Patent No. 5,603,625 as representative of Tondreault.

The office action admits that Tondreault fails to disclose the lever mechanism having an engaging surface positioned on the lever mechanism to apply a lever force on the card during insertion of the card in the slot of the connector, wherein the engaging surface is adapted to contact a contact surface on the card. The office action relies on Suzuki to provide this missing teaching. However, Suzuki also fails to disclose the admittedly missing teaching from Tondreault.

The office action relies on lever 39(2) and side projection 43(2) in Suzuki for allegedly disclosing the missing features. However, a simple comparison of Figs. 3 and 4 of Tondreault with Figs. 4A and 4B of Suzuki shows that the lever 39(2) is nearly identical to the ejector 22 of Tondreault, with the side projection 43(2) being substantially identical to the locking head 44 of Tondreault. With substantially identical structures, the features admitted to be missing from Tondreault are likewise admitted to be missing from Suzuki.

The Examiner correctly notes that the card is not positively recited in the claims, but continues to commit legal error by refusing to give patentable weight to all of the claim terms, including phrases prefaced by the 'adapted to' language.

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In any event, the Examiner misconstrues the Suzuki reference and fails to give appropriate weight to portions of the reference which teach away from the claims. The office action relies on col. 3, lines 47-57, which states:

The first and second levers 39 are for prying in cooperation the card board 21 to put the card board 21 into and out of mechanical contact with the card edge connector 31 and to bring the connecting pads 25 into and out of the electrical connection with the conductive contacts 17. More particularly, the first and second levers 39 are provided with first and second side projections 43(1) and 43(2) at their inward edges. The first and second side projections 43 (suffixes omitted) are situated so as to fit in the side recesses 27 (suffixes omitted) when the card board 21 is in place.

Applicants note that the foregoing passage is devoid of any specific teaching that the side projection 43(2) contacts the recess 27(2) of the card board 21 during insertion of the card board 21. The passage merely indicates that the projection 43(2) fits in the recess 27(2) when the card board 21 is in place (i.e. already completely seated in the connector 31). In fact, the side projections 43(1) and 43(2) only provide a card retention function. All substantive references to the side projections 43 follow:

"More particularly, the first and second levers 39 are provided with first and second side projections 43(1) and 43(2) at their inward edges. The first and second side projections 43 (suffixes omitted) are situated so as to fit in the side recesses 27 (suffixes omitted) when the card board 21 is in place." See col. 3, lines 51-57.

"As will be readily understood, it is possible to provide the side projections 43 on the side card edges and the side recesses 27 on the inward edges. In other words, each of the levers 39 may be provided with one of the side projection 43 and the side recess 27 with the other side

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projection 43 and the side recess 27 formed on the side card edge" See col. 3, lines 58-63.

"Alternatively, it is possible to provide none of the side recesses 27 on the side card edge. In this event, the side projections 43 of the levers 39 are used to make the side card edges." See col. 3, lines 64-67.

"In FIG. 4(A), the first lever 39(1) is used first to support the card board 21 at one of its side card edges by cooperation of the side projection 43(1) with the side recess 27(1) (FIG. 2)." See col. 4, lines 2-5.

"FIG. 8 shows that the location of the projection 43 and recess 27 may be reversed as shown at 43(2)' and 27(2)'." See col. 4, lines 12-13.

"In FIG. 4(C), the card board 21 is put in place. The side projection 43(2) is snugly received in the side recess 27(2) (FIG. 4(B))." See col. 4, lines 24-26.

None of the foregoing passages teach or suggest that the side projection 43(2) applies a lever force on the recess 27(2) during insertion of the card 21 into the connector 31. Instead, the foregoing passages suggest only that the projection 43(2) provides a card retention function (the projections 43 "are situated so as to fit in the side recesses 27"; the "side projection 43(2) is snugly received in the side recess 27(2)"). Absent the hindsight teaching afforded by the present application, one skilled in the art would only understand the side projection 43(2) to identically correspond to the locking head 44 disclosed in Tondreault, which performs only a card retention function ("locking head 44 enters notch 46 formed in end edge 34 of daughtercard 16 to prevent daughtercard 16 from moving vertically in the direction of arrow 56 relative to socket 10." See col. 3, lines 63-66 of Tondreault). If anything, the substantially identical structure between the locking head 44 and the side projection 43(2) teaches away from any suggestion that the side projection 43(2) provides an insertion function.

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As further proof that the side projections 43 do not provide an insertion function, the Examiner should contrast the absence of any mention of "prying" in connection with the side projections 43 against the explicit reference to "prying" in connection with the wrench arms 41, which provide the ejection function. At col. 4, lines 35-38, Suzuki describes how, on disassembly, a user pulls the lever 39(2) outwardly and "... the wrench arm 41 serves to pry the card board 21 ...". In light of this explicit disclosure for the ejection function, the absence of such explicit disclosure teaches away from any suggestion that the side projections 43 provide an insertion function.

A careful reading of the Suzuki reference as a whole shows that the first lever 39(1) assists in the insertion of the card, albeit in a different manner from the present claims, and the second lever 39(2) assists in the ejection. In the abstract, Suzuki explicitly states: "Supported by the first lever, the card board is urged to the insulator rod until its bottom edge fits the indent." The abstract then goes on to state: "On detaching the card board, the second lever is supposed to be outwardly pulled by a user. Being pried by a wrench of the second lever, the card board is turned upwardly so that the card board is put out of mechanical contact with the rod." Accordingly, the first lever assists in the card insertion (albeit in a different manner from the present claims) and the second lever assists in the ejection. This correct reading of the reference is further supported by a careful reading of the detailed description. The card insertion process is described at col. 4, lines 1-27, primarily in connection with the operation of the first lever 39(1). The card ejection process is described at col. 4, lines 35-48, primarily in connection with the operation of the second lever 39(2).

Claim 1 recites, among other things, a lever mechanism movably coupled to the connector and having an engaging surface positioned on the lever mechanism to apply a lever force on the card during insertion of the card in the slot of the connector. Claim 11 recites, among other things, moving the card into the slot by moving a contact surface of the lever mechanism from a first position to a second position. Claim 14 recites, among other things, an engaging surface attached to a surface of the lever mechanism above the ejector to engage a contact surface on the card during insertion of the card in the slot. For the reasons discussed in detail above, the relied upon portion of Suzuki, namely col. 3, lines 47-57, is misconstrued by the

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Examiner and fails to teach or suggest these claim recitations. Moreover, the Examiner fails to consider those portions of Suzuki identified above which teach away from the claims. Accordingly, each of independent claims 1, 11, and 14 are patentable over Tondreault in view of Suzuki. Claims 3-10 depend either directly or indirectly from claim 1 and are likewise patentable. Claim 13 depends from claim 11 and is likewise patentable. Claims 15-19 depend either directly or indirectly from claim 14 and are likewise patentable.

With respect to claims 11 and 13, the office action fails to establish a prima facie case of obviousness. The Examiner fails to comply with 37 C.F.R. § 104 (c)(2), because the office action does not sufficiently designate the particular part of the reference relied upon for disclosing each claim recitation and the interrelationships between the claim elements.

The office action fails to identify even a single recitation of the claims or how the reference might read on the claims. This rejection falls far short of meeting the Examiner's burden of establishing a prima facie case of obviousness. Applicants are not required to guess as to how the references are being applied to the claim.

With respect to claim 14, the office action fails to establish a prima facie case of obviousness. The Examiner fails to comply with 37 C.F.R. § 104 (c)(2), because the office action does not sufficiently designate the particular part of the reference relied upon for disclosing each claim recitation and the interrelationships between the claim elements. The office action simply reproduces various claim recitations followed by a string citation of 11 different elements disclosed in Tondreault (10, 14, 16, 12, 20, 22, 24, 28, 30, 32, 36), every figure in Tondreault (Figs. 1-5), and every text column of description in Tondreault (columns 1-4). This rejection falls far short of meeting the Examiner's burden of establishing a prima facie case of obviousness. Applicants are not required to guess as to how the references are being applied to the claim.

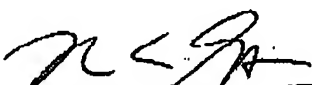
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In view of the foregoing, favorable reconsideration and withdrawal of the rejection is respectfully requested. Early notification of the same is earnestly solicited. If there are any questions regarding this application, the Examiner is invited to contact the undersigned attorney at the telephone number listed below.

Respectfully submitted,

September 22, 2004

Date


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I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office at (703) 872-9306 on September 22, 2004.

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